ITSC News

IHS Information Technology Support Center

November 2001

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Information Technology Support Center

Division of Information Resources

Indian Health Service

Point of Sale (POS) Pharmacy Billing Package Released

Pam Schweitzer

ITSC is pleased to announce the release of Point of Sale (POS) Pharmacy Billing package, Version 1.0. This application results in prescription drug claims being transmitted electronically to the payer in "real time." This is also know as on-line adjudication. Currently, thirty-eight facilities (seven Areas) are using the POS software for transmitting claims to payers such as Medicaid and/or private insurance processors, like PCS, PAID, Express Scripts and Rx America.

Although the software is relatively easy to install and set up, preparing for Point of Sale (setting up registration files, updating drug file, obtaining provider agreements) can take anywhere from 3-6 months. After completing all site preparations, the software can be installed, tested, and implemented in 1-2 days. With proper preparations, sites can become quickly successful in increasing collections.

Because of the complexity of preparing for POS installation, ITSC has formed a POS Implementation Team who is available to sites during the implementation process.

Following implementation, ITSC will continue to provide support through the RPMS Support Desk.

Additional information on POS as well as the implementation process can be found at the following IHS website:

http://home.ihs.gov/MedicalPrgms/Pharmacy/admin/bill/billmain.asp

RPMS GUI Nearing Release

Linza Bethea

ITSC is preparing to release a graphical user interface (GUI) for RPMS clinical applications. The Patient Chart GUI is intended to be the first component of an integrated, user-friendly, Windows-based applications interface for use by a broad range of users. Users include providers and other clinical staff, facility and department administrators, as well as business office and medical records staff. The GUI allows the user to see data that reflects the current clinical applications running at a specific site (e.g., Lab package, Women's Health, RCIS, etc.).

Providing a GUI for I/T/U sites hopes to address several issues. Provider order entry at point of care is a key initiative throughout the healthcare community, particularly as a partial solution to the issue of medication errors. For I/T/U sites with high provider

turnover, providing a more insightful interface to RPMS will allow new providers to use RPMS more efficiently and effectively.

The current version of the Patient Chart interface is primarily patient-centric and is intended to assist providers with the following:

- Reviewing patient information prior to or during patient visits
- Ordering laboratory tests, medications and referrals
- Directly entering and editing certain types of patient data.

An enhanced version of Patient Chart is expected to be released in early spring 2002; planned additions to functionality include: pharmacy order entry, immunization and skin test order entry, education protocols, and updated RCIS.

Patient Chart has two software components: client and server. The client is a Visual Basic executable while the server software is M code. The client and server communicate using TCP/IP. The client application uses an interface component to send and receive data from the server and presents the data through the user interface. Access to various functions is controlled at each site through security keys.

Implementing Patient Chart is not technically difficult, but is likely to require evaluation and planning for organizational and/or equipment changes. For example, because Patient Chart is intended for use at the point of care, sites may need to install computer equipment in or near exam rooms and offices to ensure easy access. This also may require changes in clinic workflow. Additionally, sites may have to plan some process changes if they decide to implement provider entry of orders. This will result in direct impacts on other departments including lab, pharmacy, and data entry staff.

In a similar approach to the PCC+ implementation, ITSC plans to assist sites in their planning for Patient Chart implementation by offering a variety of tools, orientation sessions, and training.

Additional details are available at the following IHS website:

www.ihs.gov/CIO/GUI

PCC+ Version 1.1 Implementation Continues

Linza Bethea

Despite a brief delay in October due to agency travel restrictions, ITSC is continuing its implementation of the PCC+ Customizable Encounter Form application. It was certified and released in July 2001. PCC+ provides an interface between a facility's RPMS data and MS Word mail merge files to create real time forms that can be customized by patient, provider, and/or clinic type. Most sites use PCC+ to create a two-page form that combines elements of the health summary, PCC encounter form, and superbill. The form is created and printed with patient- and provider-specific data at the time of the patient visit.

Multiple sites have implemented at least one customized form with PCC+, and several others are conducting site evaluations. ITSC will provide Orientation sessions on-site for each Area by January 2002. The session provides an opportunity for multi-disciplinary teams (providers, IT, business office, medical records, and data entry staff) from interested sites to hear detailed technical and user information about PCC+ before making a financial and resource investment in the application. Because using a new combined PCC/health summary/superbill form changes so many aspects of a clinic's workflow process, a significant part of the day-long Orientation session is spent discussing the importance of identifying and evaluating a site's existing process and planning ahead for needed changes.

ITSC is also providing training for Area staff and identified superusers so each Area can assist its sites in successfully planning and implementing PCC+. Hands-on sessions are provided for two separate functions involved with implementing PCC+:
1) Advanced Word and mail merge techniques for form design, and 2) Data extraction, review and cleanup of various codes used for form customization. Additionally, Areas can receive training on how to carry out their own on-site pre-implementation evaluations.

Information about Orientation and training schedules, site implementation status, checklists and implementation planning tools, system requirements, and other documents that will assist users in planning for and implementing PCC+ can be found at the following IHS website:

www.ihs.gov/CIO/pccplus

ITSC Team News

Application Software

Ray Willie

During the past few months, the RPMS development and support team has announced a significant number of version releases and software patches.

AG V 6.0 patch 12
Patch 12 for Patient Registration V 6.0 provides modified processing of Social Security Number Matching.

AG V 6.0 patch 13
Patch 13 for Patient Registration V 6.0 provides a new report for the Blank Community field; a new report for SSA SSN matching; removal of Menu Option DELETE INVALID HRN FROM DDPS DATABASE; and a modified MEDICAID ELIGIBLE file allowing KIDSCARE to be displayed as selectable.

AG V 6.0 patch 14
Patch 14 for Patient Registration V 6.0 provides options to export ALL information for ALL patients who have not been Merged or Deleted, for sending data directly to the National Patient Information Reporting System (NPIRS), and to ensure accuracy in reports to higher headquarters. Patch 14 also allows the AG package to reformat export records to include a unique registration record ID in each export record. It also includes an option to revert to the Pre-patch14 export format.

ABM V 2.4 patch 8
Patch 8 for Third Party Billing allows processing of Medicare Part B claims. In addition, Patch 8 contains Pharmacy Point of Sale interface routines previously excluded from Third Party Billing Patch 7. Medicare Part B functionality includes an option that will go back to date of service 7/1/2001 and create a Medicare B claim from all existing Medicare claims where the patient has part B coverage. An additional option added to the nightly claim generator will create a separate Part B claim (beginning on the date of install) if the patient has Part B coverage.

ICD9 release
Annual update of the IHS ICD Operations and Procedures (ICD0) and ICD Diagnosis (ICD9) files with new or revised ICD information.

ACR V 2.0 patch 30
Patch 30 for ARMS Version 2.0 contains the annual release of the updated per diem rates.

APSA
Quarterly update for the file that provides calculations on prescription drugs, both brand names and generics.

Patient Drug Education Database
This quarterly update of the Patient Drug Education Database includes enhancements to the Outpatient Pharmacy package enabling the printing of drug monograph sheets. The monograph sheets can be printed for a specific drug, for a specific patient's medications, or while filling new prescriptions for a patient. For easy access, all three print methods can be accomplished from the main RX menu.

Web Team

Len Thurman

On October 29, 2001 the Division of Information Resources launched a newly designed Home Page as well as Section Pages for the IHS Internet web site. These pages have been updated and enhanced to make the site easier to use and to ensure site content can be accessed by everyone – including users with disabilities.

Features of the new home and section pages include:

- Full compliancy with mandated Section 508 rules and regulations
- Cleaner, simpler design for easy navigation
- Site search function on every page
- Easier, direct linking to IHS Calendar, Employee Finder, and Frequently Asked Questions
- Descriptive section pages with clear, easy to use and understand links
- About IHS and Site Map links on every page
- Feature and Highlight boxes on every section page for improved promotions
- Faster download times

Visit the new and improved IHS web site today!

www.ihs.gov

Telecommunication News

Tom Fisher

Wide Area Network Update

The Information Technology Support Center will be implementing a new Security Technology upgrade to the IHS data network backbone to meet the ever increasing requirements of its customers and new government regulations regarding security and patient confidentiality.

The first step of this Security Technology upgrade is near completion. This involved installing a Cisco PIX 515 Firewall on Area office routers. The firewall provides security protection from unauthorized access by unsolicited customers throughout the Indian Health Service. The installation of these firewalls will be completed in November 2001. As part of the firewall installation, an additional head-end router was placed at each Area office in front of the firewall. The head-end router will provide encryption for the new network backbone that will be implemented in January 2002.

The new backbone will replace the current point-to-point backbone network with an Internet Protocol (IP) based network. This new network has a number of distinct features which will be of interest to the IHS network customers: 1) No longer will there be a single point of failure since the network is designed with multiple paths between Areas and Headquarters; 2) The internet will be accessible from each Area office. ITSC will no longer be the central point of access for Internet access; and 3) Data transporting between Area offices and Headquarters will be encrypted by the head router before being transferred to other Area offices and other computer facilities used to support various IHS applications.

IHS' new network backbone will be riding on an OC-192 (OC-192 = 10 gigabits per second) IP network. Response time on this network is guaranteed to be 45 ms round trip. At the first implementation of this network, IHS areas will be using a 1.544 Megabits per second access with options to increase the size of the pipes as needed. The size can be increased by N x T1 increments.

Once this network is operational, it will be possible to add entire Areas to this network or specific high capacity sites performing telemedicine.

VPN Network Update

IHS has implemented a Virtual Private Network (VPN) for its off-net customers. With the VPN, an individual can have access to the IHS Intranet and related patient and financial files.

As seen by the Network Access Form, admittance to the network and related information is granted on a case-by-case basis. If you are an IHS contractor, you must include the current contract name and number as well as have the contracting officer's approval before the form is sent to ITSC. If you are an IHS employee, your immediate supervisor must give authorization before access is granted.

Please note that if you are requesting VPN access via an ISP dial-up connection, you will not gain additional throughput. We are currently supporting high speed DSL, ISDN, and cable modem access using the VPN client software.

Self Determination Services

Rich Luarkie

The ITSC Self-Determination Services team has been involved in a number of activities over the past few months. Activities included participation in tribal negotiations in support of ITSC functions and services, providing supporting documentation to our IHS lead negotiators, and developing Service Level Agreements. This entire process has included working with Area Self-Governance Coordinators and Information Systems Coordinators to streamline and enhance the PFSA's being negotiated. An additional project has included the USAC-Rural Health Program, which is a telecommunications reimbursement program for Rural healthcare facilities. Following is a more descriptive explanation of the team's major activities.

Tribal Negotiation Participation

From the time the Tribal negotiation period kicked off last spring, the Self-Determination Services team worked closely with Area Lead Negotiators (ALNs) to provide supporting documentation to effectively negotiate DIR functions and services shares. The documentation includes product packages developed under the direction of each team lead. These product packages or core packages illustrate the

interdependencies of each of the applications and systems available from ITSC.

In many instances, the team also participated in the negotiations via phone conference or physically attending meetings on behalf of DIR. The Area lead negotiators must be commended on the job they are doing in negotiating DIR shares and establishing relationships with each of their constituent tribes.

Service Level Agreements
One of the major initiatives that have consumed the majority of the team's time has been developing Service Level Agreements (SLA). This was a priority established by the Information Advisory Committee (ISAC) earlier in the year. The purpose of the SLA is to encourage communication between the tribes and IHS on IT needs and resources, provide a customer focused support environment, and to promote the interrelationship between Area and National program teams in service delivery to tribal customers. This has been an interesting area of management development as we will continue to incorporate the suggestions and recommendations of ALNs, ISCs, tribal representatives, as well as other interested parties.

Services/Support Methodology
A second major effort is the development of a process and documentation to aid in understanding DIR/ITSC and Tribal support relationships. This effort will be to define and associate Tribal shares to the functions and services at all levels of the IT support infrastructure; from IHS headquarters to the Area offices, to the service unit and Tribal facility levels. It's important for ITSC to understand the relationship between Area offices and Tribes as to their individual policies that direct their individual fund allocations or distributions. This effort will assist Tribes and Tribal groups or organizations to better determine the value of DIR/ITSC IT support by providing management information that identifies techniques and best practices that will provide a format for making better business decisions for their information technology solutions.

Universal Services Administration Company-Rural Health Care reimbursement Program
The Universal Service Administrative Company (USAC) is a private, not for profit, corporation that is responsible for providing every state and territory in the United States with access to affordable telecommunications services through the Universal Service Fund. All of the country's communities, such as rural areas, low-income neighborhoods, rural health care providers, public and private schools and public libraries, are eligible to seek support from the Universal Service Fund.

The IHS has registered 465 forms for over 220 tribal facilities across the country and is now in the process of filing the 466 and 468 forms. With the help of Mr. Donnie Webb and Mr. Larry Berry, MCI has graciously agreed to assist us completing the form 468 for the eligible facilities for year-4 funding. IHS will continue to assist these facilities and provide resources at our health care facilities to capitalize on the funding available from USAC-Rural Health Care Program.

The Self-Determination Services team continues to work with the ALN's and tribal negotiators to improve our negotiation process and lines of communication. If you have any questions for the Self-Determination Services team or suggestion for improvement, please contact the DIR Self-Determination office at (505) 248-4360 or (505) 248-4468.

Data Quality Action Team

Stan Griffith

At the end of last March, DIR and senior IHS management formed the Data Quality Action (DQA) Team. The team comprised of Headquarters East, Area Office, and Information Technology Support Center (ITSC) staff, including statisticians, an epidemiologist, system analysts, a physician/informaticist, and an Area Office management representative. They charged the team with conducting a full review of NPIRS processes, data movement, documentation, and procedures, and then implementing changes to provide accurate, measurable, and timely improvements to national reporting systems.

To best address that charge, the team promptly established seven short-term goals:

- Complete an inventory of all NPIRS data
- Inventory and improve NPIRS documentation
- Coordinate with related ongoing data initiatives

- Implement an open, web-based system for communicating DQAT activities to all
- Provide access for appropriate users to the current NPIRS production database
- Implement a process for producing and iteratively improving Workload and User Pop Reports
- Take the first steps in implementing a true data warehouse/data mart design

During the intervening six months the DQA Team has worked with staff within ITSC, Headquarters and Area Statistical staff, and other colleagues at Headquarters, Area Offices, and local facilities to accomplish all seven of those goals. Although much could be said for each of the seven, this article focuses on progress made on the last three of these goals.

User Access to NPIRS

The DQA Team has worked with the NPIRS staff to design and implement the technical pieces that will allow designated users to more easily access the information in NIPRS as well as restrict that access, where appropriate, to designated "views" or subsets of that information (e.g., restrict an Area Stat Officer to just his/her Area's data). Since the current designated "system owner" for the information in NPIRS is organizationally placed in the Office of Public Health (OPH), (Edna Paisano, Supervisory Statistician, Office of Program Statistics, OPH), we now await OPH's issuing the final guidance to give us permission and direction on how to specifically grant that access. We anticipate the guidance will specify to whom we can provide access; which categories of users are to be granted access to which subsets of data, which uses require individual review and pre-approval by the system owner and which fall within routinely approved uses that do not require individual request pre-approval, etc. In the meantime, the NPIRS staff continues to provide access to these data, but only after individual review and approval by the current system owner of each request.

Improved Workload and User Pop Reports

The first week of October, NPIRS produced "final" FY1998-2000 Workload and FY1999-2000 User Pop Reports for Area review and approval. These reports included numerous major improvements in the data. During the late spring, summer, and early fall NPIRS staff worked closely with the Stat Officer Group and the DQA Team to identify, research, and implement "fixes" for the highest priority data problems affecting the accuracy of these reports. Of the approximate 50 unique issues identified with Registration and APC/Inpatient workload data, 23 (16 high priority) have been resolved and reflected in the October reports. Of the remaining 27 open issues, the resolution of 4 are either being addressed by current processing efforts or are awaiting confirmation to close. Several members of the Statistical Officers Group and the DQA Team have already reviewed the resulting reports and many have noted marked improvements in their accuracy. Although problems remain that will, in turn and in order of priority, be addressed, there is no question that these reports are much, much better than those produced just six months ago.

In addition, in July, NPIRS began to regularly produce monthly, "year-to-date" versions of the Workload and User Pop Reports for the current fiscal year. These monthly reports will continue up to the production of the "final" reports in January of the following year. This production schedule affords Area Stat Officers the opportunity, if they choose, to review their data, and identify and address any problems well in advance of the production of the final reports. Also, this fall, the DQA Team plans to work with Cimarron Medical Informatics and NPIRS staff to harmonize, as much as possible, the PCC export and the NPIRS processing and workload report logic with the local PCC report logic so that the NPIRS and local PCC reports will be more comparable and the national reports easier for Area statistical officers to verify.

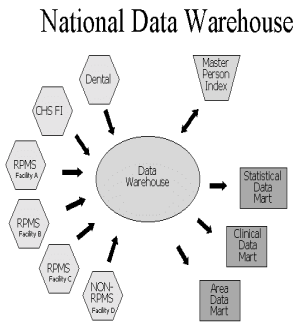
In early October, NPIRS began a comprehensive reload of its patient registration data from the field in order to improve the accuracy of its reports, especially the User Pop Reports. Although this project was primarily managed by NPIRS and other ITSC staff under the direction of the Patient Registration Workgroup, the DQA Team participated in its planning. Specifically, the DQA Team assisted ITSC programmers in the design and testing of the registration export and AIB processing programs, in identifying potential problems and suggesting solutions, in suggesting potential quality assurance checks to verify that

data were good and the various processes involved in the reload processes were working appropriately, etc.

The DQA Team will be working with NPIRS to utilize Vality's Integrity software product, a complex software application that allows probabilistic matching, in the production of the FY 2001 User Pop Reports in January 2002. This product should allow us to more accurately unduplicate patients in the NPIRS database, resulting in more accurate User Pop Reports.

A New National Data Warehouse

While the DQA Team has been working with NPIRS to improve the accuracy and timeliness of current national reporting systems, it has also begun work with IBM to design and replace the current system with a new, state-of-the-art national repository. This national data warehouse (DW) will collect, store, and archive data almost exactly as it is received. These raw data can then be analyzed and useful information provided back to Areas and local facilities about their data. Subsets of data from this warehouse will, in turn, be extracted (and only then substantively transformed) to populate various data marts targeted to specific uses. Data marts that will be developed could and likely will include a statistical data mart from which Workload and User Pop Reports and other administrative reports can be derived; one or more clinical data marts from which ORYX, GPRA, Diabetes, or other outcome measurements can be derived; Area data marts from which Areas can obtain information that best meets their individual needs; and so forth.



To test this concept, this summer we worked with IBM consultants to design the logical model and physical tables for a pilot data warehouse (PDW). At the same time we worked with ITSC programmers to design special export and export processing (AIB) programs. Registration and encounter data has already been gathered from 10 sites in 3 different Areas (9 RPMS and 1 non-RPMS site), from the Fiscal Intermediary (FI), from non-FI Contract Health Service systems, and from a separate dental information system. These data are now being extracted, minimally cleansed and transformed, and loaded into the new, pilot data warehouse for further analysis and testing.

This fall the DQA Team began work with the SAS Institute to design various reports to test the PDW, to demonstrate the utility of reports that can be produced from this design, and to begin to assess various specific strategies for improving the efficiency and effectiveness of the PDW design. For example, we are working with SAS to develop reports that would provide information to local sites about the timeliness of their data, less than expected counts based on historical norms, missing data in critical fields, erroneous or suspect codes, record counts, etc. We are also developing Diabetes and GPRA measure reports, exploring methods for unduplicating records about the same visits from different data sources, and exploring several different methods for setting workload flags and last visit dates to more easily allow true, "ad-hoc" statistical reports.

Later this fall and early winter we plan to work with Vality to use their probabilistic matching software to more accurately unduplicate patient registration records within and from different source databases (e.g., the same patient seen at different facilities) within this new data warehouse design.

Working with IBM, the DQA Team has produced a document that details our plans for moving ahead from the pilot phase to the full implementation of the first production phase of a national data warehouse. This user requirements/conceptual design document can be found on the IHS web page at the following address:

http://www.ihs.gov/CIO/DataQuality/DW1Requirements1.pdf

Future Plans and Directions

Upon completion of the official FY 2001 Workload and User Pop Reports in March 2002, it is anticipated that the normal production of these reports as well as the identification and resolution of the inevitable ongoing data issues will have been fully resumed by NPIRS. Also by then, the PDW implementation, including its evaluation, will have been completed. If the PDW is

successful, ITSC will need to continue this initiative by progressively implementing a fully functional, system-wide national data warehouse (DW-1) that, together with its associated datamarts, will eventually replace the current NPIRS and ORYX databases. Finally, to accompany the work on improving data quality that is being done by ITSC, we hope that Areas and local facilities will also take progressively more significant and tangible steps within their own settings to address the data quality issues for which they are responsible and over which they have direct influence to, in their turn, help improve the quality of data in our many systems.

RPMS Support Center Statistics

Morris Joe

The RPMS Support Center closed 349 support calls from July 13th through October 10th. Here's a breakdown of closed orders:

1. Open 0-7 Days: 267
2. Open 8-14 Days: 22
3. Open 15-21 Days: 4
4. Open over 22 Days: 56

RPMS Support Center

888-830-7280

You can also access the RPMS Support Center online via the RPMS home page at

http://www.ihs.gov/Cio/RPMS

Training Events

Larry Saavedra

The ITSC Training Homepage provides links to the RPMS training calendars of ITSC and several IHS Area Offices. Access the ITSC Training Homepage at the following URL:
http://home.training.ihs.gov/

This site also links to a comprehensive listing of meetings, conferences, and other training opportunities updated almost every week. These events are sponsored by a variety of organizations and are listed with their dates, locations, contact information, and costs.

December

ITSC/Albuquerque
12/11-13 – Lab Package

Phoenix Area
12/4-5 – Chemical Dependency Management Information System (CDMIS) V 4.1

Portland Area
12/10-14 – Third Party Billing and Accounts Receivable

January

CHRIB
1/8 – Patient Generator (PGEN)
1/9 – Visit Generator (VGEN)
1/10 – Management Reports
1/23-25 – QMAN V2.0

February

ITSC/Albuquerque
2/26-28 -- Radiology Package

CHRIB
2/6-7 – Diabetic Management
2/11-12 - Community Health Representative V1.0

Training is available on the HHS DL/net Learning Portal! Sign up today!

http://www.learning.hhs.gov/

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